

REMARKS/ARGUMENTS

Claims 1, 7, 10, 11, 15, 16, 17, 18, 21, 23, 27, 29, and 30 are amended herein. Claims 1-30 are currently pending.

Claims 1-13, 15-19, and 21-30 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,020,143 (Zdan).

Claim 1 is directed to a hierarchical traffic management system comprising at least one traffic management node. The node includes a classifier and a queuing system. The queuing system comprises a plurality of queues and is operable to apply scheduling policies to traffic streams. The queues each comprise enqueue attributes configured to control a depth of the queue and dequeue attributes configured to control scheduling of the queue. Claim 1 has been amended to specify that each layer of the queue hierarchy is configured to support one or more priority queues and comprises one or more queues configured for a minimum bandwidth attribute and one or more queues configured for a bandwidth attribute. Claim 1 has been further amended to specify that a first queue comprises a propagated attribute that propagates through the hierarchy from the first queue to a root queue, wherein the propagated attribute applies to the first queue and parent queues of the first queue with respect to traffic associated with the first queue.

The Zdan patent is directed to a system and method for differentiated queuing in a routing system. The method includes allocating a message block header for a packet, the header used to queue and route the packet to a differentiated services network domain in a manner that ensures a specific QoS.

Zdan does not disclose wherein a first of a plurality of queues comprises a propagated attribute that propagates through a hierarchy from a first queue to a root queue or a propagated attribute that applies to a first queue and parent queues of the first queue with respect to traffic associated with the first queue. Applicants' claimed propagation attributes allow for specific behaviors to be delivered through the hierarchy

from leaf to root. As further specified in the dependent claims, the attribute may be, for example, priority propagation which allows low latency behavior to be delivered through the hierarchy or minimum rate propagation which allows child nodes to be configured with a minimum rate, even through the parent node does not have an equal or greater minimum rate.

Moreover, Zdan does not disclose a queue hierarchy comprising layers each configured to support one or more priority queues and comprising one or more queues configured for a minimum bandwidth attribute and queues configured for excess bandwidth. The Examiner refers to col. 6, lines 45-67 describing a scheduling system hierarchy. This section of the patent describes a classifier 220, meter 230, and queuing block 240 included in a router 110. As shown in Fig. 5, the queuing block includes a queuing manager, a plurality of queues including an expedited forwarding queue, assured forwarding queue, and a best effort queue. The queuing manager selects a queue based on how the packet is marked. The queuing block also includes three egress queues, each having a different priority. In contrast to applicants' claimed queue hierarchy, Zdan simply discloses a queue manager, a plurality of queues selected based on type of services specified in packet, and prioritized egress queues. Zdan does not disclose layers of a queuing hierarchy having queues configured as specifically set forth in the claims.

Applicants' claimed invention combines a variety of scheduling behaviors in an integrated manner and introduces novel propagation attributes that can be propagated through a queue hierarchy.

Accordingly, claim 1 as amended, is submitted as patentable over Zdan.

Claims 2-20, depending either directly or indirectly from claim 1 are submitted as patentable for at least the same reasons as claim 1.

Claims 21, 29, and 30 have been amended and are submitted as patentable for at least the reasons set forth above with respect to claim 1. Claims 22-28, depending

either directly or indirectly from claim 21, are submitted as patentable for at least the same reasons as claim 21.

The other references cited including U.S. Patent No. 6,940,864 (Abdelilah et al.) and U.S. Patent No. 6,721,796 (Wong), do not overcome the deficiencies of the primary reference.

For the foregoing reasons, Applicants believe that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,



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